I. INTRODUCTION

A. An Influenza pandemic is an outbreak of a novel Influenza virus that has worldwide consequences. Influenza pandemics present special requirements for disease surveillance, rapid delivery of vaccines and antiviral drugs, allocation of limited medical resources, and expansion of health care services to meet a surge in demand for care.

B. Pandemics occur in the following six phases defined by the World Health Organization and the Centers for Disease Control and Prevention: Interpandemic Period (Phases 1 and 2), Pandemic Alert Period (Phases 3, 4, and 5), and Pandemic Period (Phase 6). Distinguishing characteristics of each phase are described below. The phases will be identified and declared at the national level for the purposes of consistency, comparability, and coordination of response.

C. The World Health Organization (WHO) has developed a global influenza preparedness plan, which defines the stages of a pandemic, outlines the role of WHO, and makes recommendations for national measures before and during a pandemic.

The distinction between **phases 1 and 2** is based on the risk of human infection or disease resulting from circulating strains in animals. The distinction is based on various factors and their relative importance according to current scientific knowledge. Factors may include pathogenicity in animals and humans, occurrence in domesticated animals and livestock or only in wildlife, whether the virus is enzootic or epizootic, geographically localized or widespread, and other scientific parameters.

The distinction among **phases 3**, **4,** and **5** is based on an assessment of the risk of a pandemic. Various factors and their relative importance according to current scientific knowledge may be considered. Factors may include rate of transmission, geographical location and spread, severity of illness, presence of genes from human strains (if derived from an animal strain), and other scientific parameters.

In order to describe its approach to the pandemic response, the federal government characterized the stages of an outbreak in terms of the immediate and specific threat a pandemic virus poses to the United States population. The chart below shows the relationship of the federal government response to the WHO Phases and the appearance of the disease in the United States.

Additionally, SC DHEC further breaks down the WHO Phases/Federal Government Response Stages to define the appearance of the pandemic virus in or near South Carolina. This breakdown is used particularly to trigger SC DHEC epidemiological and pharmaceutical and non-pharmaceutical (community mitigation) responses.

D. Planning guidance and assumptions are based on information provided by the U. S. Department of Health and Human Services in the "HHS Pandemic Influenza Plan – November 2005", by the Homeland Security Council in the "National Strategy for Pandemic Influenza Implementation Plan" and by the U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (CDC) in the "Interim Pre-pandemic Planning Guidance: Community Strategy for Pandemic Influenza Mitigation in the United States—Early, Targeted, Layered Use of Nonpharmaceutical Interventions." South Carolina has correlated sub-phases to direct emergency operations specific to South Carolina's Emergency Operations Plans.

The WHO phases, related Federal Government stages and South Carolina sub-phases are:

WHO Global Pandemic Phases and the Stages for Federal Government Response and Corresponding South Carolina Response			
WHO Phases		**Federal Government Response Stages**	
Inter Pandemic Period			
1	No new influenza virus subtypes have been detected in humans. An influenza virus subtype that has caused human infection may be present in animals. If present in animals, the risk of human disease is considered to be low.	**0**	New domestic animal outbreak in at-risk country
2	No new influenza virus subtypes have been detected in humans. However, a circulating animal influenza virus subtype poses a substantial risk of human disease.		
Pandemic Alert Period			
3	Human infection(s) with a new subtype, but no human-to-human spread, or at most rare instances of spread to a close contact.	**0**	New domestic animal outbreak in at-risk country
		1	Suspected human outbreak overseas
4	Small cluster(s) with limited human-to-human transmission but spread in highly localized suggesting that the virus is not well adapted to humans.	**2**	Confirmed human outbreak overseas
5	Larger cluster(s) but human-to-human spread still localized, suggesting that the virus is becoming increasingly better adapted to humans, but may not yet be fully transmissible (substantial pandemic risk).		
Pandemic Period			
6	Pandemic phase: increased and sustained transmission in general population	**3**	Widespread human outbreaks in multiple locations overseas
		4	First human case in North America *a. First case in CDC Region IV*, but not in South Carolina*
		5	Spread throughout United States *a. First case in South Carolina* *b. Localized clusters in South Carolina* *c. Widespread cases in South Carolina*
		6	Recovery and preparation for subsequent waves

**CDC Region IV states include: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee.*

The four traditional phases of emergency management can be matched with the six phases of a pandemic in the following way:

1. *Preparedness* Interpandemic (WHO Phases 1 and 2)

2. *Response* Pandemic Alert (WHO Phases 3, 4 and 5)
   Pandemic (WHO Phase 6)

3. *Recovery* Pandemic Over and Interpandemic (WHO Phases 1 and 2)

4. *Mitigation* Interpandemic (primarily) (WHO Phases 1 and 2)

D. In addition to the planning recommendations using WHO pandemic phases, the US Centers for Disease Control and Prevention has issued a planning document that outlines a Pandemic Severity Index (PSI), characterizing the possible severity of a pandemic. The index uses case fatality ratio as the critical driver for categorizing the severity of a pandemic. In this index, pandemics will be assigned to one of five discrete categories of increasing severity (Category 1 to Category 5).

Pandemic Severity Index (PSI)		
Category of Pandemic	Case Fatality Ratio	Projected Number of Deaths, SC Estimated Population 2006 (4,320,593)
Category 5	> 2.0%	> 25,924
Category 4	1.0 - < 2.0%	12,962 - < 25,924
Category 3	0.5 - < 1.0%	6,481 - < 12,962
Category 2	0.1 - <0.5%	6,481 - < 1,296
Category 1	< 0.1%	< 1,296
Per CDC interim Pre-pandemic Planning Guidance, these figures assume a 30% illness rate and unmitigated pandemic without interventions		

The interim guidance in which this index was submitted provides planning recommendations for specific community mitigation interventions that may be used for a given level of pandemic severity. Planning considerations included in this document are based on the possible severity of the event.

E. Assistance in response to an influenza pandemic consists of health and medical resources, including transportation assets, temporarily realigned from established programs having coordination or direct service capability for communication of medical information, disease surveillance, vaccine delivery, distribution of medications, public health authority and disease control.

1. COMMUNICATION OF MEDICAL INFORMATION refers to both the information flow within the public health community and the provision of critical information to the public. Appropriate and timely messages to the public are an essential element of community mitigation.

2. DISEASE SURVEILLANCE refers to the voluntary and required systematic reporting and analysis of signs, symptoms, and other pertinent indicators of illness to identify disease and characterize its transmission.

3. VACCINE PROGRAMS refers to acquisition, allocation, distribution, and administration of influenza vaccine, and monitoring the safety and effectiveness of influenza vaccinations. Vaccine programs are established as part of pharmaceutical intervention measures.

4. DISTRIBUTION OF MEDICATIONS AND OTHER CDC APPROVED COUNTERMEASURES refers to the acquisition, apportionment, and dispensing of pharmaceuticals (other than vaccines) and other countermeasures such as personal protective equipment, IV fluids and ventilators to lessen the impact of the disease and also to minimize secondary infection. This includes strategies involving both antiviral medications and antibiotics. These strategies are used as part of pharmaceutical intervention measures.

5. PUBLIC HEALTH AUTHORITY AND DISEASE CONTROL refers to the aspects of pandemic response requiring executive decisions and recommendations for social distancing, such as:

    a. ordering and enforcing *quarantine*, which is the physical separation, including restriction of movement, of populations or groups of healthy people who have been potentially exposed to a contagious disease;

    b. ordering and enforcing *isolation*, which is the separation and confinement of individuals known or suspected (via signs, symptoms, or laboratory criteria) to be infected with a contagious disease to prevent them from transmitting disease to others;

    c. ordering the release of medical information for epidemiological investigation;

d. expanding or lifting regulations and licensure requirements to allow for the expansion of medical services; and

e. ordering expansion of medical services under emergency conditions

f. issuing other lawful directives in support of the response.

g. recommending other or additional nonpharmaceutical containment strategies and other measures applied to an entire community or region, designed to reduce personal interactions and thereby transmission risk;

h. recommendations for school and public institution closings;

6. MASS FATALITY MANAGEMENT during a pandemic influenza refers to the local and statewide management and identification of human remains during the weeks of the waves of a pandemic and will overwhelm local and regional resources. Actions listed in Annex 2, Pandemic Influenza, are specific to mass fatalities during a pandemic. The general plan for mass fatality management is included as Annex 4 in the South Carolina Mass Casualty Plan, Appendix 5 to the South Carolina Emergency Operations Plan.

II. MISSION

This plan is Annex 2, Pandemic Influenza, of the Mass Casualty Plan, Appendix 5 of the South Carolina Emergency Operations Plan. This attachment identifies critical influenza pandemic response functions and assigns responsibilities for those functions within the State of South Carolina.

III. SITUATION AND ASSUMPTIONS

A. Situation

1. Vaccination of susceptible individuals is the primary means to prevent disease and death from influenza during an epidemic or pandemic.

2. The State's established vaccine delivery infrastructure consists of 46 county health departments, 20 community health centers, approximately 1700 private physicians' offices (primarily pediatric practices), birthing hospitals, and universities with health centers or schools of medicine or nursing.

3. In the event of a pandemic, the Advisory Committee on Immunization Practices, a federal entity, will publish recommendations to state immunization programs on the use of the pandemic vaccine and priority groups for immunization. These recommendations will be distributed as national guidelines as soon as possible with the expectation that they will be followed in order to ensure a consistent and equitable program.

4. The U.S. Department of Health and Human Services, Centers for Disease Control and Prevention will control the allocation and distribution of influenza vaccine to the states during a pandemic period.

5. The South Carolina Department of Health and Environmental Control will control the allocation and distribution of influenza vaccine within South Carolina and will implement specific Advisory Committee on Immunization Practices recommendations regarding priority groups for immunization.

6. County Coroners have control over mass fatalities within their jurisdiction. When a County Coroner deems that the number of fatalities exceeds local resources and capabilities to effectively handle a mass fatality incident, they may request that the county emergency manager request state-level assistance or request mutual aid from another jurisdiction.

B. Assumptions

1. Susceptibility to the pandemic influenza subtype will be universal.

2. All persons will lack immunity and will likely require two doses of the influenza vaccine.

3. After receipt of the influenza vaccine, the goal is to vaccinate the population of South Carolina on a continuous, prioritized basis.

4. When influenza vaccine becomes available, initial supplies will not be sufficient to immunize the whole population and prioritization for vaccine administration will be necessary.

5. Antiviral medications may play a significant role in disease control operations.

6. In periods of limited vaccine supply, public health clinics will be the predominant locations for influenza vaccine administration.

7. A reduction or cessation of other public health programs may be necessary in order to provide supplemental personnel for specific immunization job actions.

8. South Carolina's health care workers, emergency response workers, medical examiners, funeral directors, and morticians will face a sudden and massive demand for services and a possible 40% attrition of essential personnel.

9. The projected peak transmission period for a pandemic influenza outbreak will be 6 to 8 weeks. At least two pandemic disease waves are likely. Following the pandemic, the new viral subtype is likely to continue circulating and to contribute to seasonal influenza.

10. On average, infected persons will transmit infection to approximately two other people.

11. For the purposes of these estimates, the Centers for Disease Control and Prevention (CDC) FluAID and FluSURGE models were used. Planning assumptions used for these estimates are as follows:
    a. Population estimate: 4,320,593 (2006)
    b. Age groups:
        1. School-aged children (0-19yrs): 1,165,847
        2. Working adults (20-64yrs): 2,602,006
        3. Retirees (65+yrs): 552,740
    c. Attack rates:
        1. Minimum: 15%
        2. Most likely: 25%
        3. Maximum: 35%

12. Based upon these planning assumptions, South Carolina could anticipate between:
    a. 350,000 (15% attack rate) and 750,000 (35% attack rate) outpatient visits,
    b. 7,000 (15% attack rate) and 16,000 (35% attack rate) hospitalizations, due to novel or pandemic-strain influenza.

13. The demand for hospital resources will peak at week five (5) during an eight-week pandemic "wave". During this week, an expected increase due to the additional burden statewide caused by pandemic influenza-related cases would be:
    a. An increase of an estimated 433 hospital admissions per day,
    b. An additional estimated 2,114 persons requiring hospitalization,

c. An additional estimated 612 requiring the use of an ICU bed,
d. An additional estimated 306 requiring mechanical ventilation.

14. The number of hospital beds and the level of mortuary services available to manage the consequences of an influenza pandemic will be inadequate.

15. South Carolina may experience a range of deaths from 1,296 for a Pandemic Severity Level of 1 to over 25,924 deaths in a Severity Level of 5.

16. A pandemic influenza death is a natural manner of death. Pandemic mortalities will be counted above the normal mortality rates.

17. The death care industry, comprised of public and private agencies, will not be able to process remains the traditional manner due to the increased number of cases.

18. PI related deaths will primarily fall in two major categories, attended and unattended. The process to identify remains from attended deaths will be relatively straightforward, however, unattended deaths, which require verification of identity, issuing a death certificate and notifying the next of kin, will be labor intensive.

19. There will be delays in the issuances of death certificates for both attended and unattended deaths. This delay will place substantial pressure on the Coroner to issue death certificates so that the next of kin can manage the decedent's estate.

20. South Carolina recognizes that a mass fatality event and the subsequent caring for the deceased is a sensitive issue. The state can also expect to see a significant increase in the need for behavioral health services due to the number of stress reactions and extreme feelings of grief, loss and guilt in survivors and responders.

IV. CONCEPT OF OPERATIONS

A. The Department of Health and Environmental Control is responsible for the coordination of all Public Health measures in South Carolina, including coordination of Emergency Support Function-8 (Health and Medical Services). Beyond the traditional scope of medical care outlined in the Health and Medical Services Emergency Support Function (Annex

8), the priorities in an Influenza Pandemic response will be: communication of medical information, disease surveillance, vaccine delivery, distribution of medications, public health authority, disease control, recommendations for community mitigation measures, and mass fatality management.

B. Certain key actions may be accomplished in these priority areas during each phase of an Influenza Pandemic. The following sections will discuss activation of the plan, local response to a pandemic, pharmaceutical and nonpharmaceutical intervention measures and will give specific details on activities to be accomplished by phases during a pandemic.

C. Activation

This plan discusses many public health activities such as disease surveillance that are conducted during normal operations. The progression of small disease outbreaks into larger pandemics is tracked by the World Health Organization, the health organizations of other nations and the Centers for Disease Control and Prevention. The Centers for Disease Control and Prevention will identify, confirm and communicate to DHEC officials South Carolina's pandemic phase status. Certain actions described in this plan will be taken by the relevant agencies before activation of the State Emergency Operations Plan. Full activation of this plan and activation of the State Emergency Response Team would be made in accordance with procedures outlined in the Basic Plan.

D. Local Response

Local response to pandemic influenza is discussed in detail in respective Health Region Pandemic Influenza Emergency Operations Plans and Regional Mass Casualty Plans. The primary actions and logistics requirements at the local level are supported in this state-level plan. Primary actions at the local level would include: communication of medical information, disease surveillance, vaccine delivery, distribution of medications, implementation of public health authority, disease control, implementation of community mitigation measures, including school closings, and mass fatality management.

E. Community Mitigation

1. Introduction

For each Pandemic Phase, non-pharmaceutical measures to limit the spread of disease in the general community are outlined. Pharmaceutical measures are included as containment strategies in the appropriate phases. The non-pharmaceutical containment

measures include (but are not limited to) isolation, quarantine, infection control, and recommendations for community-based activity restrictions, including school closings. Additionally, planning for pre-event and event messages is included as part of community mitigation measures. Community mitigation measures as appropriate for each pandemic phase and pandemic severity index are included in the Public Health Authority and Disease Control sections of the plan.

2. Definitions

Isolation is the separation and confinement of individuals known or suspected (via signs, symptoms, or laboratory criteria) to be infected with a contagious disease to prevent them from transmitting disease to others. Voluntary isolation of the ill at home (adults and children) will be recommended for all severity levels of a pandemic.

Quarantine is the physical separation, including restriction of movement, of populations or groups of healthy people who have been potentially exposed to a contagious disease, or to efforts to segregate these persons within specified geographic areas. Individual quarantine control measures are most likely to be used primarily during the Pandemic Alert (Phases 4 and 5). Planning for this will include working with community partners to review steps involved in establishing and maintaining quarantine facilities and procedures. Voluntary quarantine of household members in homes with ill persons (adults and children) during Phase 6 may be considered if the Pandemic Severity Index is 2 or 3 and may be recommended if the PSI is 4 or 5.

Infection control protects individuals from coming in direct contact with infectious materials or agents to limit transmission and include physical barriers (e.g. masks, gloves), hygiene (e.g. respiratory and hand hygiene), and disinfection measures.

Community-based activity restrictions (also referred to as "**social distancing**") increase distance between members of a community by restricting or limiting public gatherings, public events, or group activities. Certain measures may be beneficial and practical when there is a larger number of cases and more extensive or severe viral transmission. In such settings, individual-level measures may no longer be effective or practical. To maximize their effectiveness, a combination of non-pharmaceutical measures tailored to the epidemiologic context of each pandemic phase and severity index will be considered for recommendation.

3. Community Mitigation Strategies

Communication of medical and preparedness information is a key factor in the success of any community mitigation measures. Development of the messages to prepare communities for implementation of individual and community control measures begins in the Interpandemic (Phases 1 and 2) and continues through the end of the Pandemic (Phase 6). Messages should address how individual actions (hand washing, covering coughs, staying home when ill) and community efforts (school closings, telecommuting) can help reduce disease transmission.

Community mitigation measures during Phases 1 and 2 include planning efforts related to influenza prevention and control, a major part of which is communication of medical and preparedness information.

During Phase 3, response efforts include development of the recommendations for isolation and quarantine that are deemed medically and legally appropriate for each pandemic severity level. The recommendations should address:

1) symptomatic persons with travel risk factors or contact with others having travel risk factors (history of travel to a country with a novel virus subtype or novel strain of influenza documented in poultry, wild birds, and/or humans) or having occupational risk);

2) those with culture confirmed and identified novel strain and;

3) symptomatic persons that are not yet confirmed.

Although individual containment measures may have limited impact in preventing the transmission of pandemic influenza (given the likely characteristics of a novel influenza virus), they may have great effectiveness with a less efficiently transmitted virus and may slow disease spread and buy time for vaccine development.

Used primarily in Phase 4 and, possibly 5, quarantine of individuals may include family members, work or schoolmates, and healthcare workers exposed to an infected or potentially infected person. The individuals remain separated from others for a specified period during which the individual is regularly assessed

for signs and symptoms of disease. This may be appropriate in situations in which the risk of exposure and subsequent development of disease is high and the risk of delayed recognition of symptoms is moderate. Persons in quarantine who experience fever, respiratory, or other early influenza symptoms require immediate evaluation by a healthcare provider.

Another initial pharmaceutical containment measure that may be considered for implementation early in a pandemic is the targeted prophylaxis of a small disease cluster in an effort to slow the spread of the disease in the state. This intervention includes the investigation of disease clusters, administration of antiviral treatment to persons with confirmed or suspected pandemic influenza and the provision of drug prophylaxis to all likely exposed persons in the affected community. This intervention may be useful upon the recognition of the first cases or introduction in South Carolina, especially in a closed community.

In Phase 6 for PSI of 4 and 5, when there is sustained novel influenza virus transmission in an area of the state, with a large number of cases without clear epidemiologic links to other cases, focused measures to increase social distance and restrict community-wide activities would be considered. At this time, individual isolation and quarantine are much less likely to have a disease control impact and likely would not be feasible to implement because of shortages in public health to track information and to verify monitoring and appropriate actions based on their findings. Additionally, there may be a shortage of law enforcement to help enforce isolation and quarantine orders.

In Phase 6, planning and implementation efforts should address community-based activity restrictions for pandemics with a PSI of 2 or greater. Efforts emphasizing what individuals can do to reduce their risk of infection may be more effective disease control tools. For all pandemic severity levels, communication of medical information should include recommendations for home care of those with pandemic influenza.

Measures that may be considered for implementation for all pandemic severity levels that affect communities include:

1) Promotion of community-wide infection control measures (e.g. respiratory hygiene and cough etiquette)

2) "Stay Home Days"(asking everyone to stay home for an initial 10-day period, with final decisions on duration based on an epidemiological and social assessment of the situation) and self-isolation

Measures that may be considered for implementation for pandemic severity levels of 2 and greater that affect communities include:

3) Closure of schools and cancellation of school-based activities, and closure of out-of-home child care programs and reduction of out-of-school social contacts and community mixing.

4) Social distancing measures such as postponement or cancellation of public gatherings such as sports events, theater performances, concerts and modifications of work place schedules and distancing practices.

Measures that may be considered for implementation for pandemic severity levels of 4 and 5 that affect communities include:

5) Closure of office buildings, shopping centers and malls, schools and out-of-home childcare, and public transportation.

In Phase 6 of a pandemic, recovery-focused messages should be provided to the public.

In the Post Pandemic Phase, the decision to discontinue community-level measures will balance the need to lift individual movement restrictions against community health and safety. Premature removal of containment strategies can increase the risk of additional transmission. Generally, considerations will be made to withdraw the most stringent or disruptive measures first.

4. Actions listed in Annex 2, Pandemic Influenza, are specific to mass fatalities during a pandemic. The general plan for mass fatality management is included as Annex 4 in the South Carolina Mass Casualty Plan, Appendix 5 to the South Carolina Emergency Operations Plan. Actions cited in the SC Mass Fatality Management Plan will be implemented in addition to the pandemic-specific actions cited in this plan.

The following sections discuss state-level actions triggered by certain phases of an influenza pandemic.

WHO Inter Pandemic Period Phases 1 and 2	USG Response Stage 0

F. Inter Pandemic (Phases 1 and 2)/USG Response Stage 0

1. Communication of Medical Information

   a. Communicate health advisories, alerts and updates through the Health Alert Network.

   b. Communicate educational messages regarding influenza prevention, surveillance, and other recommendations to the media and the public.

   c. Prepare pre-event messages and materials on pandemic influenza for public dissemination.

   d. Update public health regions on state level planning to ensure continuity of pandemic planning between state and regional levels. Distribute published medical information to regional coordinators.

2. Disease Surveillance

   a. Continue year-round Outpatient Influenza-Like Illness Sentinel Provider Surveillance, which is voluntary participation by South Carolina health care providers in the influenza-like illness (ILI) surveillance, under the guidance of the Centers for Disease Control and Prevention. Sentinel healthcare providers report the percentage of ILI patients seen each week.

   b. Conduct Sentinel Laboratory Surveillance for viral isolates. The Department of Health and Environmental Control, Bureau of Laboratories maintains the Laboratory Influenza Surveillance Program, under the guidance of the Centers for Disease Control and Prevention. Participating institutions (physicians, colleges, hospitals and local health departments) submit influenza culture specimens for viral isolation and typing. Commercial and private clinical laboratories in South Carolina are required by law to report influenza viral isolates from South Carolina residents to the Department of Health and Environmental Control.

c. Conduct Rapid Diagnostic Testing Surveillance. Hospitals and private healthcare providers report positive rapid flu tests to the Department of Health and Environmental Control. Rapid flu test reports include influenza virus type detected and the numbers of patients testing positive. Positive rapid flu test reporting to the Department of Health and Environmental Control is required by South Carolina law.

d. Implement electronic death reporting throughout South Carolina counties so that rapid reporting of a novel virus may be detected in a timely fashion.

3. Vaccine Programs

a. Develop tiered contingency plans for use of pandemic vaccine and targeted population groups for immunization.

b. Develop plans for storage, distribution, and administration of pandemic influenza vaccine through public health and other providers to nationally defined high-priority target groups. These plans should include the following:

1) mass immunization clinic capability within each Public Health Region;

2) locations of clinics (e.g., central sites, pharmacies, work place, military facilities);

3) vaccine storage capability, including current and potential contingency depots for both state and region-level storage

4) numbers of staff needed to operate immunization clinics;

5) procedures to deploy staff from other areas, from within and outside public health, to assist in immunization clinics;

6) training for deployed staff; and

7) measures to be taken to prevent distribution to persons other than those in the targeted population groups.

c. Determine how receipt of vaccine will be recorded and how a two-dose immunization program would be implemented in terms of necessary recall and record keeping procedures.

d. Determine the number of people within each Public Health Region who fall within each of the targeted population groups for vaccination and ensure that regional plans are consistent with state plans.

e. Verify capacity of suppliers for direct shipping of vaccine and other medications to Public Health Regions and private health care providers.

f. Develop plans for vaccine security:

1) during transport,

2) during storage, and

3) at clinics.

g. Coordinate proposed vaccine distribution plans with bordering Public Health Regions and States.

h. Continue vaccine adverse event surveillance.

i. Determine what information needs to be collected and how this will be done, to facilitate evaluation of pandemic influenza vaccine program activities in the post-pandemic period (including socio-economic evaluations).

4. Distribution of Medication and other CDC Approved Countermeasures:

a. Develop, coordinate and maintain a written plan to implement the Pandemic Influenza Antiviral Distribution Plan in coordination with the State SNS plan.

b. Ensure that the DHEC Health Regions develop Pandemic Influenza Antiviral Distribution Plans in coordination with the State Pandemic Influenza plan and the State and Region SNS plan.

c. Identify and coordinate current inventories of available antiviral medication and other pandemic influenza

countermeasures and medical equipment/supplies at community healthcare providers.

d. Obtain and maintain a current inventory of available antiviral medication and other pandemic influenza countermeasures maintained by the SC Department of Health and Environmental Control (DHEC) and at the DHEC prime pharmaceutical vendor.

e. Identify and establish locations for reception, repackaging, staging, distributing and dispensing the Pandemic Influenza antivirals and other CDC approved countermeasures in conjunction with the SNS assets.

f. Develop and maintain standing orders and policies and procedures for antiviral countermeasures located within the DHEC Public Health Preparedness Pharmacy.

5. Public Health Authority and Disease Control:

a. Ensure legal authorities and procedures exist for various levels of movement restrictions.

a. The Disease Control subcommittee will meet to determine recommendations of community containment measures and PPE, excluding recommendations regarding school closure.

b. Develop protocols for initiating and monitoring isolation and quarantine measures.

c. Develop and coordinate protocols for enforcing isolation and quarantine measures.

c. Establish plans to address medical surge issues, including the allocation of health care services amongst traditional health care facilities, alternate care sites, and triage facilities.

d. Establish and maintain a database of alternate care sites and triage facilities.

e. Develop public information about the appropriate use of personal protective equipment such as disposable masks and respirators that could be used during a pandemic.

f. Define risk groups by potential risk of exposure and develop guidelines and recommendations for the use of personal protective equipment by individual risk groups or potential exposure setting.

g. Recruit medical volunteers for provision of care and vaccine administration to augment medical, nursing, and other healthcare staffing. Volunteer activities for disease containment will include administering antivirals or vaccinations.

h. Develop plans for the coordination of Public Health Orders and plans with bordering states, including isolation and quarantine orders and recommendations and orders related to social distancing and community mitigation measures.

i. Confirm that health region plans incorporate the capability to employ the recommended disease containment activities.

6. Mass Fatality Management:

a. Review state and local laws and regulations to ensure that issues related to temporary interment are in place.

b. Train local coroners, funeral directors and morticians in the planning assumptions and the issues of mass fatality management specific to a pandemic.

c. Encourage local coroners, funeral directors and morticians to develop response plans and continuity of operations plans that include pandemic influenza scenario.

d. Provide information to local coroners, funeral directors and morticians on the current disease characteristics of a novel virus.

e. Encourage local coroners, funeral directors and morticians to participate in the state's electronic disease reporting system and to participate in disease surveillance activities.

f. Provide guidance to fatality responders on personal protective equipment, infection control measures, and secondary traumatic stress.

G. Pandemic Alert (Phase 3)/USG Response Stage 0 and 1

1. Communication of Medical Information – Communications same as in preparedness phase, with the addition of following:

   a. Communicate with statewide stakeholders, partners, and healthcare providers regarding enhanced surveillance.

   b. Communicate with statewide stakeholders and partners regarding actions to be taken if a person presents with severe respiratory signs and symptoms and a travel history from a high-risk global area.

   c. Develop or use pre-developed risk communication messages and education programs to improve public understanding of the dangers of pandemic influenza and the benefits of community-wide disease control practices, including social distancing measures and on stress management, psychosocial impact of disasters..

   d. Work with HHS Region IV states to ensure consistency of risk communication messages across state lines.

   e. Develop scripts and messages for use in the statewide 2-1-1 information system.

2. Disease Surveillance – Year-round sentinel provider, sentinel lab and rapid influenza test surveillance activities will continue as in preparedness phase, with the addition of the following:

   a. Enhance avian influenza surveillance.

   b. Inform SC health care providers of the latest clinical and epidemiologic risk factors through the Health Alert Network.

   c. Upgrade suspected human cases of avian influenza to an "urgently reportable condition."

   d. Enhanced surveillance that will include participation of stakeholders and partners, once novel strain identified in the U.S.

e. Maintain and review Regional Memoranda of Agreements between Local Education Agencies and DHEC Regions for enhanced epi surveillance of school absences.

f. Develop means of rapid communication to other HHS Region IV states if a suspected novel virus appears in South Carolina.

3. Vaccine Programs –

a Promote pneumococcal vaccination of high-risk groups to reduce the incidence and severity of secondary bacterial pneumonia.

b. Establish Memoranda of Agreement (MOA) with agencies, organizations and individuals capable of providing assistance in administering vaccine.

4. Distribution of Medication and other CDC Approved Countermeasures:

a. Confirm current inventory of available medication of health care providers (i.e. hospitals, clinics, pharmacies).

b. Confirm current inventory of available medication at Department of Health and Environmental Control primary drug wholesaler and additional wholesalers in South Carolina.

c. Prepare to activate memoranda of agreement with agencies, organizations and individuals capable of providing assistance in obtaining and distributing medication such as the South Carolina Pharmacy Association.

d. Confirm credentialed personnel necessary to deploy the Pandemic Influenza Antiviral Distribution Plan.

e. Confirm the locations for reception, repackaging, staging, distributing and dispensing the Pandemic Influenza antivirals and other CDC approved counter measures in conjunction with the SNS assets.

f. If necessary, modify plans for the distribution of medications and other medical materiel.

g. Deploy State antiviral stockpile for initial disease containment.

5. Public Health Authority and Disease Control.

a. Review state and regional response plans.

b. Confirm that notification lists are current for local agencies, the medical community, and decision makers.

c. Confirm that the database for the Health Alert Network (HAN) is current.

d. Determine if a meeting of the Disease Control subcommittee or other decision makers is indicated to recommend courses of action for disease containment measures, excluding school closures, which will be addressed by the inter-agency school closure task force.

e. Convene a school closure task force led by SCDHEC and State Department of Education (SDE) to identify threshold criteria for consideration of epidemiological and administrative school closure thresholds during a pandemic of PSI category 2 and greater.

f. Develop triggers for recommending implementation of other specific community mitigation and social isolation actions.

g. Develop messages for home care of pandemic influenza patients.

6. Mass Fatality Management – Mass Fatality Management same as in preparedness phase, with the addition of following:

a. Ensure that MOAs for temporary interment are in place.

b. Establish multiple vendors for mortuary resources which may be in short supply during the pandemic; stockpile supplies as possible.

WHO Pandemic Alert Phase 4	**USG Response Stage 2**

H. Pandemic Alert (Phase 4)/USG Response Stage 2

1. Communication of Medical Information

    a. Communications and education to health care providers, the media and the general public same as in Pandemic Alert phase 3.

    b. Communicate disease prevention, control, and mitigation guidelines for physicians providing care during a pandemic to address the provision of basic medical treatment in non-hospital settings.

    c. Issue recommendation not to travel to affected areas.

    d. Also, disseminate influenza isolation and quarantine guidelines and social distancing measures.

2. Disease Surveillance – Year-round surveillance activities, including enhanced surveillance, are the same as in Pandemic Alert phase 3, with the addition of the following:

    DHEC and State Department of Education continue development and testing of mechanisms for enhanced epi surveillance of school absences.

3. Vaccine Programs

    a. Conduct initial availability assessment of supplies (e.g., syringes, adrenalin, sharps disposal units), equipment and locations potentially required for a vaccine-based response (i.e., mass immunization clinics).

    b. Develop a list of currently qualified vaccinators and sources of potential vaccinators.

    c. Review educational materials concerning administration of vaccines and update as needed.

    d. Collaborate on national and international vaccine development initiatives.

4. Distribution of Medication and other CDC Approved Countermeasures – Activities continue as in Pandemic Alert phase 3 and CDC will begin shipment of DSNS held antivirals and other medical countermeasures over 21 days to the 62 project areas.

5. Public Health Authority and Disease Control.

a. The school closure task force continues development and refinement of threshold criteria for consideration of epidemiological and administrative school closure thresholds during a pandemic. As MOAs are implemented between Local Education Agencies and DHEC Regional Health Departments, absenteeism data tracking and sharing mechanisms are tested.

b. Coordinate triage logistics with hospitals and Emergency Medical Services including patient assessment, communication between facilities, and direction of patients to available beds.

c. Confirm the medical surge plan is current and test its activation.

d. Provide consultation and support on animal issues which impact public health and coordinate with Animal Emergency Response Agencies regarding culling infected animal populations or other animal disease containment activities during a pandemic.

e. Investigate suspect cases and close contacts.

f. Implement individual isolation and quarantine of suspect and confirmed cases and their close contacts.

g. Enforce isolation and quarantine measures

6. Mass Fatality Management - Activities continue as in Pandemic Alert phase 3.

WHO Pandemic Alert Phase 5	**USG Response Stage 2**

I. Pandemic Alert (Phase 5)/USG Response Stage 2

1. Communication of Medical Information – Communication to health care providers, the media and the general public is the same as in the Pandemic Alert phase 4.

2. Disease Surveillance –

a. Community surveillance activities are the same as in the Pandemic Alert phases 3 and 4.

b. DHEC and State Department of Education begin enhanced surveillance of school student and faculty absences, ability to operate administratively, and situationally determined epi assessments.

3. Vaccine Programs

a. Ensure ongoing involvement in vaccine development initiatives.

b. Review and modify if necessary, plans for storage, distribution, and administration of pandemic influenza vaccine through public health and other providers to high-priority target groups.

c. Ensure staff is trained and infrastructure is in place to record immunizations, including requirements for a two-dose immunization program (i.e., recall and record keeping procedures).

d. Review estimates of the number of people who fall within each of the targeted population groups for vaccination (i.e., high-risk groups, health care workers, emergency service workers, specific age groups).

4. Distribution of Medication and other CDC Approved Countermeasures:

a. Develop strategies for antiviral drug use incorporating CDC guidance and priority groups.

b. Communicate to providers who have signed the Memorandum of Agreement with SCDHEC when the federal government:

1) authorizes the release of the joint state/federal purchased antivirals

2) determines commercially available supplies are sufficient.

c. Distribute antivirals and other CDC approved countermeasures in accordance with the pandemic

Influenza Antivirals Distribution plan and the SC Strategic National Stockpile plan.

d. Activate established memoranda of agreement with other governmental entities, professional associations, volunteer organizations and private services that may assist during a pandemic influenza or other disaster.

5. Public Health Authority and Disease Control.

a. Coordinate disease control activities with vaccination activities to ensure vaccination of essential workers and population who are either at high risk of spreading the influenza virus or who provide essential community services.

b. If enhanced epi surveillance data indicate, school closure task force-determined school-closure thresholds have been met, or if other compelling epi or societal criteria present themselves, School Closure Executive Committee is convened by the State Epidemiologist.

c. The Commissioner of Health will advise the Governor on:

1) the most appropriate pharmaceutical and non-pharmaceutical community mitigation measures during the time period when no vaccines are yet available,

2) school closures (per recommendation from school closure executive committee),

3) the most appropriate distribution priorities and systems during time when there is insufficient supply of vaccines and prioritization of distribution is necessary;

4) the most appropriate uses of antiviral drugs during the time before vaccine is available;

5) the projected demand for health and medical care services; and

6) whether the threat of a public health emergency, as defined in Section 44-4-130, is imminent.

d. Investigate suspect cases and close contacts.

e. Implement individual isolation and quarantine of suspect and confirmed cases and their close contacts.

f. Enforce isolation and quarantine measures.

6. Mass Fatality Management - Activities continue as in Pandemic Alert phase 4.

WHO Pandemic Period Phase 6	USG Response Stages 3, 4, 5 SC Response 3, 4, 4a, 5

J. Pandemic (Phase 6)/USG Response Stages 3,4,5 (SC Response SC Response 3, 4, 4a, 5)

1. Communication of Medical Information

a. Communication to health care providers, the media and the general public is the same as in Pandemic Alert phase 5.

b. Also, establish and communicate precautions needed for disposal of deceased persons.

c. Activate 2-1-1 information system.

2. Disease Surveillance: Continue community and school surveillance activities in any Local Education Agencies in which schools remain open or are re-opened .

3. Vaccine Programs

a. General

1) Ensure ongoing involvement in vaccine development, testing, and production initiatives.

2) Purchase vaccine if necessary.

3) Evaluate recommended priority groups for immunization based on available epidemiologic data and Health and Human Services (HHS)/Advisory Committee on Immunization Practices (ACIP) guidance.

4) Review and modify if necessary, plans for vaccine security (i.e., during transport, storage, and clinic administration)

b. When vaccine is available:

1) Activate immunization clinic capability.

2) Implement streamlined Vaccine Adverse Event surveillance.

3) Arrange for direct shipping of vaccine to public health regions.

4) Communicate with bordering states to facilitate awareness of the vaccine distribution plan and coordination of efforts as much as possible.

5) Collect and compile reports of total people immunized with one or two doses.

6) Monitor vaccine supply, demand, distribution, and uptake.

7) Recruit trained immunization staff from unaffected public health regions to augment regular staff in affected areas.

c. End of first wave:

1) Expand vaccine programs to cover population not yet immunized, according to priority group, if applicable.

2) Summarize and report coverage data (with one or two doses) and Vaccine Adverse Event data.

3) Examine vaccine efficacy.

4) Continue Vaccine Adverse Event surveillance.

5) Restock supplies and resume routine programs.

6) Review and revise policies, procedures, and standing orders used during the mass immunization campaigns.

4. Distribution of Medication and other CDC Approved Countermeasures:

    a. Assess availability of antiviral medication and other approved countermeasures.

    b. Provide for the distribution of state and federal medical assets in conjunction with the SC SNS plan.

5. Public Health Authority and Disease Control.

    a. Depending on the severity of the pandemic and its proximity to the state, implement social distancing measures and school closings.

    b. Investigate suspect cases and close contacts.

    c. Implement individual isolation and quarantine of suspect and confirmed cases and their close contacts.

    d. Enforce isolation and quarantine measures.

    e. Make decisions about culling infected animal populations or other animal disease containment activities during a pandemic.

6. Mass Fatality Management:

    a. Monitor disease fatality rate using the electronic death reporting system and written Vital Records reports.

    b. If needed by the disease Severity Level, determine if implementation of the Emergency Public Health Authority Act or Governor's Declaration of State of Emergency is needed to manage the mass fatalities resulting from the disease.

    c. Establish Family Assistance Centers that minimize contact with the public; consider the use of virtual FACs.

WHO Pandemic Period Phase 6	USG Response Stages 3, 4, 5 SC Response 5a and 5b

K. WHO Pandemic Period Phase 6/USG Response Stages 3, 4, 5/SC Response 5a and 5b

1. Communication of Medical Information- Activities will continue as under Pandemic (Phase 6)/USG Response Stages 3,4,5 (SC Response SC Response 3, 4, 4a, 5)

2. Disease Surveillance – Activities will continue as under Pandemic (Phase 6)/USG Response Stages 3,4,5 (SC Response SC Response 3, 4, 4a, 5)

3. Vaccine Programs – Activities will continue as under Pandemic (Phase 6)/USG Response Stages 3,4,5 (SC Response SC Response 3, 4, 4a, 5)

4. Distribution of Medication and other CDC Approved Countermeasures – Activities will continue as under Pandemic (Phase 6)/USG Response Stages 3,4,5 (SC Response SC Response 3, 4, 4a, 5)

5. Public Health Authority and Disease Control.

   a. Dependent on the severity of the pandemic, implement social distancing measures and school closings.

   b. Investigate suspect cases and close contacts.

   c. Implement individual isolation and quarantine of suspect and confirmed cases and their close contacts.

   d. Enforce isolation and quarantine measures.

   d. Make decisions about culling infected animal populations or other animal disease containment activities during a pandemic

6. Mass Fatality Management - Activities will continue as under Pandemic (Phase 6)/USG Response Stages 3,4,5 (SC Response SC Response 3, 4, 4a, 5)

WHO Pandemic Period Phase 6	USG Response Stages 3, 4, 5
	SC Response 5c

L. WHO Pandemic Period Phase 6/USG Response Stages 3, 4, 5/SC Response 5c

1. Communication of Medical Information – Activities will continue as in WHO Pandemic Period Phase 6/USG Response Stages 3, 4, 5/SC Response 5a and 5b

2. Disease Surveillance - Activities will continue as in WHO Pandemic Period Phase 6/USG Response Stages 3, 4, 5/SC Response 5a and 5b

3. Vaccine Programs - Activities will continue as in WHO Pandemic Period Phase 6/USG Response Stages 3, 4, 5/SC Response 5a and 5b

4. Distribution of Medication and other CDC Approved Countermeasures - Activities will continue as in WHO Pandemic Period Phase 6/USG Response Stages 3, 4, 5/SC Response 5a and 5b

5. Public Health Authority and Disease Control.

   a. Cease epidemiological investigations when adequate numbers of staff are no longer available to pursue investigations.

   b. Cease individual isolation and quarantine when adequate numbers of staff are no longer available to monitor subjects and when measures will no longer have a disease control affect.

   c. Dependent on the severity of the pandemic, implement social distancing measures and school closings.

6. Mass Fatality Management:

   a. Replenish mortuary supplies

   b. Review and revise state and local plans for managing mass fatalities.

WHO Pandemic Period Phase 6	USG Response Stages 3, 4, 5, 6
	SC Response 4a, 5a, b, c

M. Second Wave/Pandemic Period Phase 6/USG Response Stages 3, 4, 5, 6 (SC Response Stages 5a, b, c)

Activities will continue as under First Wave Pandemic Phase 6/USG Response Stages 3, 4, 5, 6 (SC Response 5a, b, c)

WHO Inter Pandemic Period Phases 1 and 2	USG Response Stage 0

N. Pandemic Over / Interpandemic Period Phases 1 and 2/USG Response Stage 0

1. Communication of Medical Information – Communicate to medical community, the media and the general public regarding decreasing trend of influenza attack rates data.

2. Disease Surveillance – Conduct studies of morbidity and mortality data, attack rates in South Carolina.

3. Vaccine Programs – Replenish medical supplies and initiate resumption of routine programs.

4. Distribution of Medication and other CDC Approved Countermeasures – Review and revise current distribution plans.

5. Public Health Authority and Disease Control: Lift or revoke public health orders that are no longer necessary.

6. Mass Fatality Management:

   a. Replenish mortuary supplies

   b. Review and revise state and local plans for managing mass fatalities.

WHO Inter Pandemic Period Phases 1 and 2	USG Response Stage 0

O. Mitigation/WHO Inter Pandemic Period Phases I and 2/USG Response Stage 0

1. Communication of Medical Information –

   a. Communicate with the medical community, stakeholders, the media, and the general public regarding decreasing trend of influenza attack rates.

   b. Communicate the lifting or revocation of public health orders that are no longer necessary to the affected populations through the Joint Information System.

2. Disease Surveillance – Conduct studies of morbidity and mortality data, attack rates in South Carolina.

3. Vaccine Programs

   a. Review, evaluate, and take measures to improve or enhance respective roles.

   b. Recommend post-pandemic studies to assist in evaluations of the pandemic influenza response capacities and coordinated activities.

4. Distribution of Medication and other CDC Approved Countermeasures – Review, evaluate, and take corrective action to improve response.

5. Public Health Authority and Disease Control

   a. Evaluate effectiveness of statutory and regulatory authorities related to pandemic response.

   b. Evaluate effectiveness of school closings, if any, and impact versus value of closings.

   c. Make efforts to amend statutory and regulatory authorities to increase the effectiveness of pandemic response.

6. Mass Fatality Management:

   a. Evaluate effectiveness of plans, including staffing and equipment needs.

   b. Evaluate sufficiency and effectiveness of mental health responses.

V. RESPONSIBILITIES

A. Department of Health and Environmental Control

1. Communicate health advisories, alerts and updates through the Health Alert Network.

2. Communicate educational messages regarding influenza prevention and surveillance to the media and the public.

3. Prepare pre-event messages and materials on pandemic influenza for public dissemination.

4. Update public health regions on state level planning to ensure continuity of pandemic planning between state and regional levels. Distribute published medical information to regional coordinators.

5. Continue Outpatient Influenza-Like Illness Sentinel Provider Surveillance.

6. Communicate Influenza-Like Illness surveillance data as appropriate.

7. Conduct Sentinel Laboratory Surveillance for viral isolates.

8. Conduct Rapid Diagnostic Testing Surveillance.

9. Implement electronic death reporting throughout South Carolina counties.

10. Develop tiered contingency plans for use of pandemic vaccine and targeted population groups for immunization.

11. Develop plans for storage, distribution, and administration of pandemic influenza vaccine through public health and other providers to nationally defined high-priority target groups – these plans should include:

    a. mass immunization clinic capability within each Public Health Region;

    b. locations of clinics (e.g., central sites, pharmacies, work place, military facilities);

    c. vaccine storage capability, including current and potential contingency depots for state and regional-level storage;

    d. numbers of staff needed to run immunization clinics;

e. procedures to deploy staff from other areas, from within and outside public health, to assist in immunization;

f. training for deployed staff; and

g. measures to be taken to prevent distribution to persons other than those in the targeted population groups.

12. Determine how receipt of vaccine will be recorded and how a two-dose immunization program would be implemented in terms of necessary recall and record keeping procedures.

13. Determine the number of people within each public health region who fall within each of the targeted population groups for vaccination.

14. Verify capacity of suppliers for direct shipping of vaccine and other medications to public health regions and private health care providers.

15. Develop plans for vaccine, antiviral and countermeasures security:

    a. during transport,

    b. during storage, and

    c. at clinics.

16. Coordinate proposed vaccine distribution plans with bordering Public Health Regions and States.

17. Continue Vaccine Adverse Event Surveillance.

18. Determine what information needs to be collected and how this will be done, to facilitate evaluation of pandemic influenza vaccine program activities in the post-pandemic period (including socio-economic evaluations).

19. Develop, coordinate and maintain a written plan to implement the Pandemic Influenza Antiviral Distribution Plan in coordination with the State SNS plan.

20. Ensure that the SCDHEC Health Regions develop Pandemic Influenza Antiviral Distribution Plans in coordination with the State Pandemic Influenza plan and the State and Region SNS plan.

21. Identify and coordinate current inventories of available antiviral medication and other pandemic influenza countermeasures and medical equipment/supplies at community healthcare providers.

22. Obtain and maintain a current inventory of available antiviral medication and other pandemic influenza countermeasures maintained by the SC Department of Health and Environmental Control (SCDHEC) and at the SCDHEC prime pharmaceutical vendor.

23. Develop, coordinate and maintain a written plan to implement the Pandemic Influenza Antiviral Distribution Plan in coordination with the State SNS Plan.

24. Identify and establish locations for reception, repackaging, staging, distributing and dispensing the Pandemic Influenza antivirals and other CDC approved countermeasures in conjunction with the SNS assets.

25. Develop and maintain standing orders and policies and procedures for antiviral countermeasures located within the Public Health Preparedness Pharmacy.

26. Ensure legal authorities and procedures exist for various levels of movement restrictions.

27. The Disease Control Subcommittee will meet to determine recommendations of community containment measures and PPE, excluding recommendations regarding school closure.

28. Develop protocols for initiating and monitoring isolation and quarantine measures.

29. Develop and coordinate protocols for enforcing isolation and quarantine measures.

30. Establish plans to address medical surge issues, including the allocation of health care services amongst traditional health care facilities, alternate care sites, and triage facilities.

31. Establish and maintain a database of alternate care sites and triage facilities.

32. Develop public information about the appropriate use of personal protective equipment like disposable masks that could be used during a pandemic.

33. Define risk groups by potential risk of exposure and develop guidelines and recommendations for the use of personal protective equipment by individual risk group or potential exposure setting.

34. Recruit medical volunteers for provision of care and vaccine administration to augment medical, nursing, and other healthcare staffing. Volunteer activities for disease containment will include administering antivirals or vaccinations.

35. Develop plans for the coordination of Public Health Orders and plans with bordering states, including isolation and quarantine orders and recommendations and orders related to social distancing and community mitigation measures.

36. Confirm that health region plans incorporate the capability to employ the recommended disease mitigation activities.

37. Review state and local laws and regulations to ensure that issues related to temporary interment are in place.

38. Train local coroners, funeral directors and morticians in the planning assumptions and the issues of mass fatality management specific to a pandemic.

39. Encourage local coroners, funeral directors and morticians to develop response plans and continuity of operations plans that include pandemic influenza scenario.

40. Provide information to local coroners, funeral directors and morticians in the current disease characteristics of H5N1 and potential characteristics of a novel virus.

41. Encourage local coroners, funeral directors and moriticians to participate in the state's electronic disease reporting system and to participate in disease surveillance activities.

42. Provide guidance to fatality responders on personal protective equipment and infection control measures.

43. Communicate with statewide stakeholders, partners, and healthcare providers regarding enhanced surveillance.

44. Communicate with statewide stakeholders and partners regarding actions to be taken if a person presents with severe respiratory signs and symptoms and a travel history from a high-risk global area.

45. Develop or use pre-developed risk communication messages and education programs to improve public understanding of the dangers of pandemic influenza and the benefits of community-wide disease control practices, including social distancing measures.

46. Work with HHS Region IV states to ensure consistencey of risk communication messages across state lines.

47. Develop scripts and messages for use in the statewide 2-1-1 information system.

48. Enhance avian influenza surveillance.

49. Inform SC health care providers of the latest clinical and epidemiologic risk factors through the Health Alert Network.

50. Upgrade suspected human cases of avian influenza to an "urgentable reportable condition."

51. Maintain and review Regional Memoranda of Agreements between Local Education Agencies and DHEC Regions for enhanced epi surveillance of school absences.

52. Develop means of rapid communication to other HHS Region IV states if a suspected novel virus appears in South Carolina

53. Promote pneumococcal vaccination of high-risk groups to reduce the incidence and severity of secondary bacterial pneumonia.

54. Establish Memoranda of Agreement (MOA) with agencies, organizations and individuals capable of providing assistance in administering vaccine.

55. Confirm current inventory of available medication of health care providers (i.e. hospitals, clinics, pharmacies).

56. Confirm current inventory of available medication at Department of Health and Environmental Control primary durg wholesaler and additional wholesalers in South Carolina.

57. Prepare to activate memoranda of agreement with agencies, organizations and individuals capable of providing assistance in obtaining and distributing medication such as the South Carolina Pharmacy Association.

58. Confirm credentialed personnel necessary to deploy the Pandemic Influenza Antiviral Distribution Plan.

59. Confirm the locations for reception, repackaging, staging, distributing and dispensing the Pandemic Influenza antivirals and other CDC approved countermeasures in conjunction with the SNS assets.

60. If necessary, modify plans for the distribution of medications and other medical materiel.

61. Deploy State antiviral stockpile for initial disease containment.

62. Review state and regional response plans.

63. Confirm that notification lists are current for local agencies, the medical community, and decision makers.

64. Confirm that the database for the Health Alert Network (HAN) is current.

65. Determine if a meeting of the Disease Control subcommittee or other decision makers is indicated to recommend courses of action for disease containment, excluding school closures

66. Convene a school closure task force led by SCDHEC and State Department of Education (SDE) to identify threshold criteria for consideration of epidemiological and administrative school closure thresholds during a pandemic of PSI category 2 and greater.

67. Develop triggers for recommending implementation of other specific community mitigation and social isolation actions.

68. Develop messages for home care of pandemic influenza patients.

69. Ensure that MOAs for temporary interment are in place.

70. Establish multiple vendors for mortuary resources which may be in short supply during the pandemic; stockpile supplies as possible.

71. Communicate disease prevention, control, and mitigation guidelines for physicians providing care during a pandemic to address the provision of basic medical treatment in non-hospital settings.

72. Issue recommendation not to travel to affected areas.

73. Disseminate influenza isolation, quarantine and social distancing guidelines.

74. Conduct initial availability assessment of supplies (e.g., syringes, adrenalin, sharps disposal units), equipment and locations potentially required for a vaccine-based response (i.e., mass immunization clinics).

75. Develop a list of currently qualified vaccinators and sources of potential vaccinators.

76. Review educational materials concerning administration of vaccines and antivirals and update as needed.

77. Collaborate on national and international vaccine development initiatives.

78. The school closure task force continues development and refinement of threshold criteria for consideration of epidemiological and administrative school closure thresholds during a pandemic. As MOAs are implemented between LEAs and DHEC Regional Health Departments, absenteeism data tracking and sharing mechanisms are tested.

79. Coordinate triage logistics with hospitals and Emergency Medical Services including patient assessment, communication between facilities, and direction of patients to available beds.

80. Confirm the medical surge plan is current and test its activation.

81. Provide consultation and support on animal issues which impact public health and coordinate with Animal Emergency Response Agencies regarding culling infected animal populations or other animal disease containment activities during a pandemic.

82. Investigate suspect cases and close contacts.

83. Implement individual isolation and quarantine of suspect and confirmed cases and their close contacts.

84. Enforce isolation and quarantine measures.

85. DHEC and State Department of Education begin enhanced surveillance of school student and faculty absences, ability to operate administratively, and situationally determined epi assessments.

86. Review and modify if necessary, plans for storage, distribution, and administration of pandemic influenza vaccine through public health and other providers to high-priority target groups.

87. Ensure staff is trained and infrastructure is in place to record immunizations, including requirements for a two-dose immunization program (i.e., recall and record keeping procedures).

88. Review estimates of the number of people who fall within each of the targeted population groups for vaccination (i.e., high-risk groups, health care workers, emergency service workers, specific age groups).

89. Develop strategies for antiviral drug use incorporating CDC guidance and priority groups.

90. Communicate to providers who have signed the Memorandum of Agreement with SCDHEC when the federal government:

    a. authorizes the release of the joint state/federal purchased antivirals;

    b. determines commercially available supplies are sufficient.

91. Distribute antivirals and other CDC approved countermeasures in accordance with the Pandemic Influenza Antiviral Distribution Plan and the SC Strategic National Stockpile.

92. Activate established memoranda of agreement with other governmental entities, professional associations, volunteer organizations and private services that may assist during a pandemic influenza or other disaster.

93. Coordinate disease control activities with vaccination activities to ensure vaccination of essential workers and population who are either at high risk of spreading the influenza virus or who provide essential community service.

94. If enhanced epi surveillance data indicate, school closure task force-determined school closure thresholds have been met, or if other compelling epi or societal criteria present themselves, School Closure Executive Committee is convened by the State Epidemiologist.

95. The Commissioner of Health will advise the Governor on:

    a. the most appropriate pharmaceutical and non-pharmaceutical community mitigation measures during the time period when no vaccines are yet available,

    b. school closures (recommendation from the school closure executive committee),

    c. the most appropriate distribution priorities and systems during time when there is insufficient supply of vaccines and prioritization of distribution is necessary;

    d. the most appropriate uses of antiviral drugs during the time before vaccine is available;

    e. the projected demand for health and medical care services; and whether the threat of a public health emergency, as defined in Section 44-4-130, is imminent.

96. Investigate suspect cases and close contacts.

97. Implement individual isolation and quarantine of suspect and confirmed cases and their close contacts.

98. Enforce isolation and quarantine measures.

99. Establish and communicate precautions needed for disposition of deceased persons.

100. Activate 2-1-1 information system.

101. Ensure ongoing involvement in vaccine development, testing, and production initiatives.

102. Purchase vaccine if necessary.

103. Evaluate recommended priority groups for immunization based on available epidemiologic data and Health and Human Services

(HHS)/Advisory Committee on Immunization Practices (ACIP) guidance.

104. Activate immunization clinic capability.

105. Implement streamlined Vaccine Adverse Event surveillance.

106. Arrange for direct shipping of vaccine to public health regions.

107. Communicate with bordering states to facilitate awareness of the vaccine distribution plan and coordination of efforts as much as possible.

108. Collect and compile reports of total people immunized with one or two doses.

109. Monitor vaccine supply, demand, distribution, and uptake.

110. Recruit trained immunization staff from unaffected public health regions to augment regular staff in affected areas.

111. Expand vaccine programs to cover population not yet immunized.

112. Summarize and report coverage data (with one or two doses) and Vaccine Adverse Event data.

113. Examine vaccine efficacy.

114. Continue Vaccine Adverse Event surveillance.

115. Restock supplies and resume routine programs.

116. Review and revise policies, procedures and standing orders used during the mass immunization campaigns.

117. Assess availability of antiviral medication and other approved countermeasures.

118. Provide for the distribution of state and federal medical assets in conjunction with the SC SNS plan.

119. Depending on the severity of the pandemic and its proximity to the state, implement social distancing measures and school closings.

120. Make decisions about culling infected animal populations or other animal disease containment activities during a pandemic.

121. Monitor disease fatality rate using the electronic death reporting system and written Vital Records reports.

122. If needed by the disease severity level, determine if implementation of the Emergency Public Health Authority Act or Governor's Declaration of State of Emergency is needed to manage the mass fatalities resulting from the disease.

123. Establish Family Assistance Centers that minimize contact with the public; consider the use of virtual FACs.

124. Cease epidemiological investigations when adequate numbers of staff are no longer available to pursue investigations.

125. Cease individual isolation and quarantine when adequate numbers of staff are no longer available to monitor subjects and when measures will no longer have a disease control affect.

126. Review and revise state and local plans for managing mass fatalities.

127. Communicate to the medical community, the media and the general public regarding decreasing trend of influenza attack rates data.

128. Conduct studies of morbidity and mortality data, attack rates in South Carolina.

129. Replenish medical supplies and initiate resumption of routine programs..

130. Review and revise current distribution plans for antivirals and other approved countermeasures.

131. Communicate the lifting or revocation of public health orders that are no longer necessary to the affected populations through the Joint Information system.

132. Review, evaluate, and take measures to improve or enhance respective roles in vaccine programs.

133. Recommend post-pandemic studies to assist in evaluations of the pandemic influenza response capacities and coordinated activities.

134. Evaluate effectiveness of statutory and regulatory authorities related to pandemic response.

135. Make efforts to amend statutory and regulatory authorities to increase the effectiveness of pandemic response.

136. Communicate with the public regarding the potential impact and what to expect during a pandemic.

B. South Carolina Pharmacy Association

1. Assist with the procurement of medications.

2. Assist with obtaining volunteer pharmacists for distribution

3. Assist with storage, distribution, and administration of pandemic influenza vaccine to defined high-priority target groups.

4. Assist with development of list of currently qualified vaccinators and sources of potential vaccinators.

C. South Carolina Department of Transportation

1. Assist with storage and transportation of vaccine, antiviral and other countermeasures.

2. Assist with control of roads and transportation to support disease containment efforts.

3. Assist with enhanced surveillance efforts including assessment and consideration of isolation of symptomatic travelers from high-risk areas.

D. South Carolina Press Association – Assist with distribution of information to keep the public informed about disease containment and prevention measures and where to go for assistance.

E. South Carolina Hospital Association

1. Support disease surveillance activities.

2. Assist with coordination for the administration of pandemic influenza vaccine to defined high-priority target groups.

3. Assist with development of list of currently qualified vaccinators and sources of potential vaccinators.

4. Assist with development of plans for surge capacity and, along with the Department of Health and Environmental Control, establish acceptable standards of care when facilities are at or beyond capacity.

5. Assist with coordination of expansion of medical services to meet surge in demand.

F. South Carolina Ports Authority – Assist with enhanced surveillance efforts including assessment and consideration of isolation of symptomatic travelers from high-risk areas.

G. South Carolina National Guard

1. Assist with storage, distribution, and administration of pandemic influenza vaccine to defined high-priority target groups.

2. Assist with the development of protocols for the enforcement of isolation, quarantine and other community containment measures.

3. Assist with the coordination and implementation of protocols for the enforcement of isolation, quarantine and other community containment measures.

4. Assist in the development of plans for vaccine and antiviral and other countermeasures security:

a. during transport,

b. during storage, and

c. at clinics.

4. Assist with vaccine and antiviral and other countermeasures security

a. during transport,

b. during storage, and

c. at clinics.

H. South Carolina Department of Labor, Licensing, and Regulations

1. Assist with development of a list of currently qualified vaccinators and sources of potential vaccinators.

2. Assist with establishing licensing privileges for out-of-state physicians, nurses and pharmacists.

I. South Carolina Department of Commerce

1. Assist with the acquisition of pandemic influenza vaccine, and other pandemic response materials, if necessary.

2. Assist with developing collaborative relationships and Memoranda of Agreement with business and industries that have work-site health care facilities that can be used as mass vaccination clinics for their employees.

J. Department of Public Safety

1. Assist in the development of plans for vaccine and antiviral and other countermeasures security:

   a. during transport,

   b. during storage, and

   c. at clinics.

2. Assist with vaccine and antiviral and other countermeasures security

   a. during transport,

   b. during storage, and

   c. at clinics.

3. Assist with the development of protocols for the enforcement of isolation, quarantine and other community mitigation measures.

4. Assist with the coordination and implementation of protocols for the enforcement of isolation, quarantine and other community mitigation measures

K. State Law Enforcement Division

1. Assist in the development of plans for vaccine and antiviral and other countermeasures security:

    a. during transport,

    b. during storage, and

    c. at clinics.

2. Assist with vaccine and antiviral and other countermeasures security

    a. during transport,

    b. during storage, and

    c. at clinics.

3. Assist with the development of protocols for the enforcement of isolation, quarantine and other community mitigation measures.

4. Assist with the coordination and implementation of protocols for the enforcement of isolation, quarantine and other community mitigation measures.

L. SC Budget and Control Board

1. Assist with the acquisition of pandemic influenza vaccine.

2. Assist with procurement of medical supplies.

M. Clemson University Livestock and Poultry Health – Identify and assess livestock disease threats and animal related public health issues that may contribute to pandemic influenza spread.

N. Department of Natural Resources

1. Assist in the development of plans for vaccine and antiviral and other countermeasures security:

    a. during transport,

    b. during storage, and

    c. at clinics.

2. Assist with vaccine and antiviral and other countermeasures security

   a. during transport,

   b. during storage, and

   c. at clinics.

3. Assist with the development of protocols for the enforcement of isolation, quarantine and other community mitigation measures.

4. Assist with the coordination and implementation of protocols for the enforcement of isolation, quarantine and other community mitigation measures.

O. South Carolina Department of Education

1. Assist with communication of the need for school closures to prevent the spread of disease.

2. Work in collaboration with DHEC on the school closure task force on collection of enhanced surveillance of absenteeism and ability of schools to operate administratively and advise/staff the school closure executive committee.

3. Assist with designating school facilities for non-traditional health care facilities when needed

P. South Carolina Department of Mental Health

1. Provide guidance to fatality responders on secondary traumatic stress.

2. Develop or use pre-developed risk communication messages and education programs for stress management and psychosocial impact of disasters.

Q. South Carolina Coroners Association

1. Local Coroners will coordinate and direct temporary morgue operations.

2. Local Coroners will coordinate and direct documentation of, handling of, and final disposition of deceased persons including the next of kin notification operations.

3. Monitor disease fatality rate using electronic death reporting system and written Vital Records reports.

4. Establish multiple vendors for mortuary resources which may be in short supply during the pandemic; stockpile supplies as possible.

5. Establish Family Assistance Centers that minimize contact with the public; consider the use of virtual FACs.

6. Review and revise state and local plans for managing mass fatalities.

R. South Carolina Funeral Directors Association

1. Assist in coordination of next of kin notification operations.

2. Assist with coordination of temporary morgue operations and final disposition of deceased persons.

3. Assist with documentation and recordkeeping relevant to pandemic influenza-related mortality.

4. Establish multiple vendors for mortuary resources which may be in short supply during the pandemic; stockpile supplies as possible.

5. Monitor disease fatality rate using electronic death reporting system and written Vital Records reports.

6. Establish Family Assistance Centers that minimize contact with the public; consider the use of virtual FACs.

7. Review and revise state and local plans for managing mass fatalities.

S. South Carolina Mortician's Association

1. Assist in coordination of next of kin notification operations.

2. Assist with coordination of temporary morgue operations and final disposition of deceased persons.

3. Assist with documentation and recordkeeping relevant to pandemic influenza-related mortality.

4. Establish multiple vendors for mortuary resources which may be in short supply during the pandemic; stockpile supplies as possible.

5. Monitor disease fatality rate using electronic death reporting system and written Vital Records reports.

6. Establish Family Assistance Centers that minimize contact with the public; consider the use of virtual FACs.

7. Review and revise state and local plans for managing mass fatalities.

T. South Carolina United Way

1. Activate 2-1-1 system.

VI. FEDERAL INTERFACE

The Department of Health and Human Services is the principal Federal agency for protecting the health of all Americans. State response operations will interface with Federal response assets through ESF-8 and through liaison between the State Department of Health and Environmental Control and the Centers for Disease Control and Prevention. The Centers for Disease Control and Prevention will also facilitate guidance and information flow between the State of South Carolina and the World Health Organization, which would have significant involvement during an Influenza Pandemic.

Once the World Health Organization declares Phase 4 of an influenza pandemic, the Director of the CDC on consultation with the Secretary of HHS, or his/her designee, will determine when to activate the SNS to begin the distribution of medical materiel based on the WHO Phase characterization and the severity of the disease; no state request will be necessary to launch the distribution of the medical countermeasures. These medical assets will arrive in three deployments, each taking approximately 7 to 10 days to arrive.

Liaison between the State Emergency Operations Center and the Department of Homeland Security will provide access to additional Federal health and medical assets.

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